The DX Bulletin

SPECIAL REPORT

• *America's Oldest Weekly Amateur Radio Publication* •

Chod Harris VP2ML Editor

Don Reibhoff K7ZZ

The DX and contest world lost a giant last month, when **Don Reibhoff K7ZZ** was killed at the wheel of his Porsche in an automobile accident in Spain. Anyone who sat in front of a radio during the past 15 years heard, and probably worked, Don from a variety of locations around the world. Don's ability to put out a whopping signal, and rapid-fire operating skills put him in thousands of logs. He will be sorely missed.

Don first came to the attention of the DX world in the late 1960s from Southeast Asia. As **HS3DR**, Don handed out thousands of Thailand contacts. The radio bug bit hard, and Don began a beacon from that part of the world over the next several years. As one of the main operators of Chester's **XV5AC** callsign from downtown Saigon (at the height of the Vietnam War), Don made over 50,000 QSOs from that embattled location.

During frequent trips to Cambodia (now Kampuchea), Don was instrumental in getting that country back on the amateur bands. He made more than 25,000 more contacts as **XU1DX** during the early 1970s.

First Documented Operation from Spratly - 1S

Then in early 1973 Don and several other amateurs mounted a major DXpedition to nearby Spratly Island. The only previous operation from this "country" was by the notorious Don Miller W9WNV. Although Miller's operation was accepted by the ARRL's DXCC desk as a New One, with Miller's reputation, we may never know if he actually went to Spratly. But there is no question that Don Reibhoff went there, as he ran his Super-8 movie camera the whole time! K7ZZ thus gets credit for the first documented operation from 1S, and perhaps the first real operation from there as well, as **1S1A**.

Radio Portugal

Don's Southeast Asia exploits were enough to earn him a permanent spot in the hearts of DXers everywhere, but were only the start of his long DX career. In the late 1970s, Don set up a station high above the Atlantic on the coast of Portugal. As **CT4AT**, Don entered and won most major contests. He constructed a full-sized 40 meter quad that set new records on the band, and his 20 meter signal was a class above anything else out of Europe.

A short tale may best illustrate Don's prowess at producing one of the best signals on the band: In multi-single contest operations out of New England, this writer would leave strict instructions with the all-night, low-band operators to wake me up at the first sign of Europe on 20 meters, so that I wouldn't miss the multiplier-rich morning opening. Early one Saturday morning, the 80-meter op come hammering at the door, "Europe is coming through!" I sleepily asked, "What do you hear?" The other op answered, "CT4AT is 20 over 9!" "Forget it," I responded, "Wake me up in another hour." Sure enough, about one hour later, other European stations began to come up from the noise.

CT4AT opened the band a good hour before any other station came through, and stayed in more than a hour after every other station had faded into the noise.

Don had operating skills to match his station-constructing expertise. He could knock off QSOs at over 300 an hour, hour after hour. He could hear though noise and QRM, and seldom needed a repeat. This combination meant that Don worked well down through the layers of stations calling, to real beginner DXers.

Perhaps another episode can illustrate this: Don set out to make a new record on 40 SSB from CT4AT. His signal hammered into the US, but many stateside stations simply didn't know how to master the art of working split on 40 SSB. As the night wore on and contacts became few and far between, Don enlisted this author to round up some more QSOs. I combed the Stateside 40 meter band, breaking into every contact and asking if the hams wanted to work Portugal. I guaranteed a QSO, if they would QSY to my transmitting frequency. Meanwhile Don rounded up a bunch of Europeans from below 7100 for me to work.

Then we'd meet on our respective frequencies, and run the small pileups we'd gathered. Don was even willing to wait for a station to spin the dial down to his transmit frequency for the report, and QSY back to the US phone part of the band for the answer. In this way Don put the first CT, and probably the first Europe, QSO in hundreds of logs. And yes, he set a new world's record. [and despite Don's help, I lost! -ed.]

Thanks to this and similar activities throughout the contest season, Don became known as Radio Portugal for his superior signal and consistent operating.

Conventions and DX Gatherings

In addition to being a fine operator of well-constructed stations, Don was an excellent and entertaining speaker at DX functions across the country. Don carried a Super-8 movie camera throughout Southeast Asia, even as he was being evacuated from the area by one of the last helicopters. Through his films, slides, and banter, Don could draw his audiences into the excitement and thrill of his activities. Don's talks were always memorable, a true DX experience for old-timer and newcomer alike.

Don also had a flair for off-beat publicity. At the dead of winter near the peak of the Vietnam War, then-President Nixon ordered the heat in all government buildings to be no more than 68°, to conserve energy. Don circulated a photo of himself at his high-power operating position in Saigon, surrounded by three huge air conditioners all going full blast. Don was holding a copy of Nixon's degree, and a thermometer that read 74°. Don's caption read, "Trying hard to get it down to 68!"

Other DXers and contesters will remember some of Don's photos from Portugal, usually including hundreds of empty bottles of Portuguese wine, and a very attractive, scantily clad female. Some of these photos would not be reproducible in a family publication, but gave a insight into Don's spirit and love of life.

"What do you do?"

At the New England Division convention some years back, a member of the audience asked Don, "Mr. Reibhoff, sir, what do you do?" Once Don recovered from being addressed as "sir", he answered, "Why, I contest!" with the accent on the last syllable. Don's nominal job was as a teletype repairman for the Department of State. Those who knew him always marvelled at the ability of this lowly repairman to command the resources of platoons of marines and tons of equipment!

His State Department career included assignments in Bagdad, Iraq, and Prague, Czechoslovakia, as well as Southeast Asia and Portugal. He was a fluent linguist, and mastered the local language as he did radio operating.

Don Reibhoff was been a major force in the world of DX and contesting for more than 15 years. His powerful signal, superb operating skills, and friendly and helpful attitude will long be remembered by DXers everywhere.

NEW COUNTRY NEWS

Why DXCC Needs New Countries

an editorial

by The DX Bulletin editor

The DX Century Club country list gained a new entry on January 24, 1987, when **3Y1EE** and **3Y2GV** fired up from Peter I Island, off the coast of Antarctica. The event gave DXCC a much-needed shot in the arm. The DX Advisory Committee, presently under Board of Directors orders to study possible restructuring of DXCC, would do well to listen to the bands and DX repeaters during the Peter I DXpedition, and recommend changes in the current DXCC program so that we have more operations such as this one.

Why New Ones?

Any DXer who asks why the DXCC program needs occasional "New Ones" or new awards hasn't been on the air the past two weeks. The well-run Peter I DXpedition has done wonders for the program. To wit, the Peter I operation has:

Gotten DXers on the air. Calls that have not been heard on the bands in years are in the pileups. Rigs that have lain idle for too long are being fired up, with frequently disastrous results! Hams are finding excuses to rush home during lunch hour to get on. (One enterprising Local forgot his daughter's lunch, and had to return to pick it up, and incidentally snag Peter I!)

Forced DXers to learn new skills. As the Peter I operators used SMØAGD's suggestion of 'channelized' split frequencies (see facing page), many DXers were forced to push their fancy new radios and operating skills to the limit. Those previously-inactive DXers struggled to master the complexities of multiple-frequency hopping, without months of practice. Active DXers, already thoroughly familiar with their rigs, prevailed in the early going.

Brought radio club members together. Dozens of seldom-heard calls appeared on the local spotting repeater, as the closet DXers came out of the woodwork to ask for help from their fellow club members. "Where is he listening?" "Is he on SSB yet?" "Did he get my call right?"

At times each contact seemed to be a group effort: several club members spotting the listening frequencies and calling out successful contacts, one member making a landline call to the poor soul transmitting on top of the 3Y, and more members carefully listening to the 3Y for any familiar calls. When the DXer finally made contact, the entire club shared in the satisfaction. Isn't that great for the spirit of DX and ham radio!

Demonstrated the value of listening to the DXer's receive frequency. The 3Y operators successfully avoided obvious operating patterns (see W6MUR's letter.) The easy DX ploys of figuring out the DX station's pattern and getting there ahead was uncommonly difficult with Peter I. But DXers with the equipment and skills to simultaneously monitor both transmit and receive frequencies had a real advantage. The Peter I operators would often sit on one frequency for a time, tuning with RIT, until enough DXers figured out what was happening, and forced the 3Y to change receive frequency. But meanwhile the DXer who was listening to both frequencies found the right spot first, and nailed the contact. Their less-skilled brethren picked a spot and hollered, and hollered, and hollered.

Got many new antennas up. DXers who postponed erecting their new 15-meter beam had to scramble up their towers in late-January to work Peter I. More antennas mean more band openings on 15! (And Mosley sold lots of replacement traps.)

Created a spirit of excitement and enthusiasm. DXers were making the kinds of decisions they haven't made for years: "I think I'm going to get the flu tomorrow." "Is it worth getting up in the wee hours of the morning for the 3Y?" And from one DX convinced (erroneously) that the operation was going to end the next day: "I'm going to catch the red-eye to Atlanta. My brother down there has worked them on four bands!"

Monday, January 26 saw much absenteeism that many bosses suspected was over-indulgence in Superbowl parties. The malady was, of course, not-yet-worked-the-New-One-itis. Many calls usually heard only on the weekends were in there calling on Monday. Whatever their illness was, it didn't affect their ability to shout! One DXer was overheard to say, "Work is the hobby; this is the real world." To which another DXer answered, "That's why I'm not sleeping tonight."

Prompted ingenious DX approaches. The sit-and-shout gang fared poorly in the early going. The elusive DX prey went to the innovator. One local DXer, frustrated by lack of success with more traditional methods, noted that the Peter I station usually started listening on 14033 before spreading out the pile-up. About 10 minutes before the hour on which the Peter I station had appeared the previous day, the ingenious DXer started calling Peter I on 14033, listening on 14022. Sure enough, a few minutes later, the 3Y came on, tuned up, worked the enterprising DXer already on frequency, and then launched into the pile-up! Now that's using your DX brain and not megawatt brawn!

Brought fun back into DXing. One word this reporter heard again and again as the DXers struggled through the pileups: fun. "Wow, this is fun." "Great fun doing it this way, figuring out his moves and getting there first." "Anyone know where to get replacement high-voltage fuses for the Henry 2-K?"

Recommendations for Restructuring DXCC

The purpose of the DXCC program is to encourage DX activity, improve DX skills, and promote good relationships between amateurs. The advent of the first real new DXCC country in years has shown that the purpose of the DXCC program is well served by occasional New Ones. The present structure is too rigid, or too rigidly administered, to meet this purpose.

The Golden Jubilee DXCC award did many of same good things for DX that the Peter I New One did. Inactive DXers got back on the air, and joined the friendly competition to work 100 first. DXers enjoyed operating, working DX, and not digging through old logs to find a long-neglected ZC4.

There are several ways the DXAC can restructure DXCC to redirect the program back toward its main purpose. An annual "honor roll" by number of countries worked in that calendar year is one possibility. Maybe a new award based on total Band Countries [more on this idea soon.] Or perhaps an additional New One every year, selected from applications based on quality of operation, as much as on arbitrary political decisions. Or perhaps all we need is less-conservative members on the DXAC: DXers philosophically inclined toward New Ones (letters to your ARRL Director would help here.)

Whatever the solution, the DXAC and all DXers should think about the consequences of establishing a New One such as Peter I. The many benefits to both DX and DXers will certainly demonstrate the value of well-planned and well-executed DXpeditions to New Ones, such as the Peter I operation.

Channelized Split DXing

The Peter I DXpedition has been using SMØAGD's suggestion for specific channels for receive frequencies, instead of spreading the calling stations all across the band. For example, on 20 meters, 3Y1EE might listen on 14200, 14210, 14220, etc., and not at any frequency between. Some DXers have hailed this 'channelized split' as the way to work DX in the '80s, while others curse and complain, and say the system smacks of the dreaded "Russian Roulette."

Eric Sjölund SMØAGD is the creator and chief proponent of channelized split frequency operation. Eric coached Einar LA1EE on the process, and even loaned his ICOM IC-735 with split-channel modification. Eric argues that today's microprocessor controlled rigs can change the way DX pileups are run. He first used the method on 10 meters from Canton Island in the Pacific, using both SMØAGD/KH1 and T31AE. He programed a series of frequencies into the memories of his rig. He worked stations on one frequency until the pileup got too big. Then he punched up the next "channel." The result was a series of very concentrated pileups, with plenty of non-DX operating space between.

Eric points out that this system eliminates one of the greatest argument by non-DXers against DX and DXpeditions: clobbering an entire band with a huge pileup. Channelized splits provides non-DXers with ample spectrum for other radio activities. [Enough for even New Zealanders! -ed.]

But does it help the DX station or the DXer? Certainly the active DXer who is thoroughly familiar with his rig can more easily master the skill of hopping from one 'channel' to the next, listening for the last contact. Those DXers with old-style analog rigs have to spin the dial to catch up, and are probably at a disadvantage. And the concentration of stations means the loudest stations have an even larger advantage (but what else is new.)

What about the DX station? What benefit is there for the 3Y? The purpose of spreading out the pileup is to increase the rate of contacts by decreasing the number of stations calling on a particular frequency at a particular time. Channelized splits accomplish that, without creating the "bump" or "wave" of DXers following the DX station as he slowly tunes up the band. The channels break the pileup into smaller, more manageable chunks specifically by making it more difficult to outguess the DX station.

Some DXer decry exactly this "benefit," claiming its apparently random nature decreases everyone's chance of a contact (see W6MUR's letter.) But does this system really discriminate against all DXers? If so, then overall contact rates should be lower under channelized split than under more-traditional pileup-spreading techniques. However, some DXers certainly mastered the art of skipping ahead 10 kHz at a time, and added Peter I to their DXCC totals on the first day. QSO rates were excellent, so the system does not slow the DX station up at all.

Not for Constant Use

The Peter I operators are wisely reserving this channelized split procedure for occasions when the pileup demands extraordinary measures. When they first come on the band, they often use the well-recognized 14200-210 range, for example, gradually expanding the range as needed. Further, the CW operation has been using traditional splits and operating procedures. And even in the middle of the channelized runs, 3Y1EE would occasionally say, "Now 420." If you were ready and waiting (patiently) on 21420, you could be one of a dozen or so contacts before Einar returned to discrete channel operation. So DXers who lacked the equipment or expertise to chase 3Y1EE still had a fair chance.

On the Probability of Working a New One

by Bill Johnson W6MUR

This is intended to soothe the frustration that is felt in being unable to work a station such as 3Y1EE or 3Y2GV that is a first-time new country.

According to the 1986 Callbook, there are 735,583 amateurs in the world (after subtracting out 175,325 US Technicians and Novices.) Of these, roughly 7%, or about 50,000, are interested enough in DX to seriously try to work Peter I. Not all of these are DXCC members or aspiring to be such, of course, but they are a factor in the QRM caused by trying to work a brand new country such as Peter I.

Ordinarily, and in all past expeditions, a skilled DX operator has some inkling of where the DX's receiver will be tuned. By sitting out a few calls he can discover whatever tuning pattern may be in use. In the case of 3Y1EE and 3Y2GV, however, we have a new SSB modus operandi said to originate with Eric SMØAGD, designed to lessen the impact of 50,000 amateurs taking over a given phone band. The DX announces he is tuning only in several small bands around 20-kHz increments, starting at 14200, 14220, 14240, etc., or the equivalent on 21 MHz, up to the end of the US band. And in practice, he appears to tune those segments at random, in no particular order, probably selecting the segment that has the least QRM at that moment, regardless of the frequency of the last QSO. On CW, although there is more of a conventional pattern, the skip to the south is such and beams are so oriented that it is most difficult to find, in one or two seconds, the station being worked so the distribution is still fairly random.

Thus we have on both CW and SSB the characteristics of a Monte Carlo game, in which working the station is more like a successful pull on a slot machine. What are the odds of making a contact at any point in time?

Let **N** be the number of DXers calling, **Q** be the QSO rate per hour, **R** the bandwidth of the DX station's receiver, **B** the bandwidth of the pileup, and **K** be the fudge factor for timing, accuracy, phonetic choice, voice quality, etc.

Then we have a DX density of **(N/B)/1000** in stations per kHz. There are **B/R** slots the DX station can hear you in, and the odds of being the station selected in a given 1-Khz band segment is **1000(N/B)K.** Thus the odds of making the contact are **(B/R)(1000)(N/B)(K).** (Note the bandwidth of the receiver cancels out, but narrow bandwidths do make the DX station's job easier!)

The probability of making an early contact is thus **1 in 1000(N/R)K.** If there are 50,000 DXers calling, and R=100, and K=5, then the probability of a QSO is 1 in 2,500,000! By comparison, the odds of drawing four of a kind from an initially 52-card deck in 4 draws are 1 in 6,497,400.

Assuming a QSO rate of 250/hour, it will take 200 hours or 8.33 full 24-hour days to work all 50,000 stations. And this assumes no insurance contacts, nor repeats for those who weren't sure about their QSO the first time, or contacts on other bands or modes.

For the first week of operation, your odds of "making it" are about the same as for winning in Las Vegas, with this type of operation. Having worked many expeditions in the past 40 years, I think the old way is best; at least, there is a greater reward for skill.

[The DX Bulletin thinks channelized split operation, occasionally and properly used, has a future in major DXpeditions. What do **you** think?]

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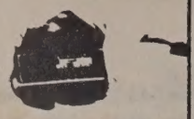

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